Response to Comments

TECHNICAL REVIEW

DRAFT FINAL SECURE LANDFILL OPERATIONS AND MAINTENANCE MANUAL AND DRAFT FINAL WORK PLAN FOR CELL 3 OPERATION AND MAINTENANCE APRIL **2017**

ARCONIC INC., MASSENA, NEW YORK

EPA contractor Booz Allen Hamilton (Booz Allen) has completed a technical review of two documents pertaining to operation and maintenance (O&M) of existing Secure Landfill Cell 3 at the Arconic Inc. (Arconic) facility in Massena, New York. Specifically, these documents include the February 2017 Draft Final O&M Manual for Cell 3 and the February 2017 Draft Final Work Plan for Cell 3 O&M. These documents address continued use of the existing landfill cell, and each was reviewed for compliance with regulations pertaining to the Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA).

Comments developed during the review are provided below.

Although these ongoing landfilling operations will be conducted concurrently with expansion of the cell to the east, construction documents detailing the expansion were provided to EPA under separate cover and are not addressed below.

I. Comments on the Draft Final O&M Manual for Cell 3

Section 1.2, Secure Landfill Description, page 3

1. *This section presents combined design capacities and disposed waste volumes for the three landfill cells at the Massena facility. However, the volumes listed appear to be inconsistent with those provided in Table 1-1. Clarify the manual (and all supporting or related documents) to provide cell-specific design capacities, wastes previously placed into each cell, and remaining capacities as currently built. The proposed capacity of the Cell 3 expansion should also be noted.*

Arconic Response Comment 1: Text presented in Section 1-2 will be revised for consistency with the information presented in Table 1-1.

Section 1.3. Waste Quantities and Description, page 3

2. *The second sentence in this section states that Table 1-1 lists descriptions of and major contaminants associated with waste materials previously disposed in the three landfill cells. Because the table provided only generic information on waste sources, the above- referenced sentence should be deleted or modified for accuracy.*

Arconic Response Comment 2: The second sentence in Section 1.3 will be deleted for accuracy.

Section 2.1.1. Cell 3 Preparation, pages 8 and 9

3. *Step 4 in the Cell 3 re-opening process refers to removal of the existing white high density polyethylene textured geomembrane liner, followed by disposal of that liner within the cell. The manual must be revised to clarify that the liner will not be removed within Cell 3. Only the interim cap used during temporary closure of Cell 3 will be removed and disposed during the cell re-opening process. This same correction must be made in the second paragraph of Section 2.1.2.*

Arconic Response Comment 3: The existing straw insulation layer, white liner, and 8 inches of sand will remain in Cell 3. Only the temporary anchor weights will be removed from Cell 3. The text in Section 2.1.1 will be adjusted accordingly.

Section 2.1.3, Subsequent Waste Lifts. Page 9

4. *This section describes precautions to be implemented to protect the cell's liner system when disposing of sharp objects. Expand this section to discuss the means by which and by whom such wastes and waste loads will be identified prior to disposal at the landfill.*

Arconic Response Comment 4: Tetra Tech will place steel, concrete, or other sharp objects in accordance with Section 4.9.8: Transportation and Disposal of Steel Waste Material of the Final O&M Plan and as directed by the Engineer. The CDM Smith CQA inspector will verify that these requirements are met by visual inspection during construction. Communications with the Contractor will be ongoing throughout the project.

Section 2.2, Cell 3. Page 9

5. *The second paragraph in this section indicates that water will be used for dust control, if needed. The manual should be expanded to clarify whether a specific standard will be used to determine that water application is needed, or if visible dust will be sufficient to warrant control measures. Sections 2.2 and 4.10 of the manual should specify that the smallest volume of water will be used during dust control measures to avoid overly straining the Cell 3 liner and leak collection system.*

Arconic Response Comment 5: Continuous perimeter air monitoring for particulate and PCB concentrations will be conducted. Threshold alarms will alert the field team if unacceptable levels are encountered and the necessary dust control measures will be conducted. Section 2.2 will be revised to specify the minimum volume of water to be used for dust control.

Section 3.1, Method of Operation, page 10

6. *Section 1.1.1 of the February 2017 Preparedness, Prevention, and Contingency (PPC) Plan notes that decontamination of vehicles that do enter the landfill cell will occur within a steel-floored decontamination pad located just below the crown of the landfill berm. Expand the sixth bullet on page 10 of the manual to include this information and amend figures in the plan to show the proposed location of the decontamination pad. Figure 2 from the February 2017 Draft Final Contractor Stormwater Pollution Prevention Plan (SWPPP) indicates that the pad will be located within the berm on the south side of Cell 3, but the only ramps into and out of the cell are' shown on the east side of the cell and separated from the proposed decontamination pad location by the temporary berm. Expand the bullet to provide details on how the decontamination pad is to be*

accessed without damaging the berm or crossing the temporary berm, and how regularly waste placement vehicles will need to undergo such decontamination.

Arconic Response Comment 6: The text in Section 3.1 and associated figures will be revised to show the location of the decontamination pad. The decontamination pad will not be steel-floored, but will be lined with planking.

7. *Expand the last bullet on page 10 to discuss decontamination procedures and location for vehicles that are used to haul wastes to, but do not enter, Cell 3. Simple visual inspection of the box and tires prior to departure from the landfill is not acceptable unless (I) the truck is returning directly to the loading area to pick up additional wastes and (2) there is no possibility that loading personnel will come into contact with residual wastes or contaminants in the truck bed.*

Arconic Response Comment 7: The bullet will be expanded in Section 3.1 to verify these conditions.

Section 3.3.2.2, Waste Placement, page 13

8. *The first bullet in this section states that demolition debris will only be placed in Cell 3 in locations where at least three feet of material exists between that waste and the bottom clay liner, and at least five feet of material is in place between the waste and cell side slopes. According to the text, the minimum three-foot buffer on the cell floor may include the two- foot thick drainage layer of sand. However, this allowance creates an unexplained inconsistency between protections to be afforded to the different liner areas (i.e., three feet on the bottom versus five feet on the sides). If the three-foot buffer requirement was applied in addition to the two-foot drainage layer, the full buffer would be five feet on the bottom of the unit, consistent with the requirement for buffering along the cell's side slopes. Present additional justification for the proposed buffer differences, or modify them for consistency. Sections 3.3.2.2 and 2.1.3 may both need to be revised in accordance with this comment.*

Arconic Response Comment 8: To clarify the information presented in Section 3.3.2.2, the three-foot buffer requirement includes the two-foot drainage sand layer. The three-foot buffer was determined to be adequate protection for material placed on top of the bottom clay liner because all sharp objects would be laid horizontally and on their flat side. The five-foot buffer was maintained on the side slopes due to the fact that the areas of the sharp objects most prone to penetration of the liner (the ends) would be closer to the side slopes and would require additional protection.

Section 3.3.3, Waste Volume, page 13

9. *This section indicates that roughly 15,000 cubic yards of stockpiled steel in Building 120 will be stacked, organized, and compacted to approximately 640 cubic yards during placement in Cell 3. These estimates will reduce the volume of wastes to less than 5% of its current configuration, but the photographs in Appendix B suggest that the waste pile is already relatively tightly packed and such significant additional compression may not be feasible. Provide additional justification for the maximum disposed volume of 640 cubic yards for waste coming from the Building 120 area. Furthermore, the discussion in this Section should account for all currently anticipated Cell 3 wastes listed in Table 2-1, not solely those wastes considered most urgent for disposal at this time.*

Arconic Response Comment 9: This section will be clarified. As part of the West Plant building demolition, a steel member inventory including PCB-impacted steel members was prepared. Each steel member was detailed with exact dimensions. A total weight was calculated and converted directly into cubic yards (640 CY). This volume represents the space the steel would take up in the landfill if bedded in Cell 3 waste with no voids. Following building demolition activities, PCB-impacted materials were temporarily stored in Building 120. The members were loosely placed (estimated volume of 15,000 CY). The Contractor will sort, transport, place within Cell 3, and backfill approved PCB-impacted waste around the steel members in accordance with criteria established with the O&M Plan to minimize voids. The steel represents a unique PCB-impacted waste in comparison to the other anticipated Cell 3 wastes (sediment, soil, and concrete) that have been placed within the SLF previously.

Section 3.4, Decontamination. Page 13

10. *This section of the manual must be expanded with specific detail on decontamination procedures and protocols to be used at Cell 3. This discussion should identify which items will require decontamination (e.g., the newly exposed liner beneath and east of the temporary berm area, heavy equipment that enters the cell, the beds and tires of heavy equipment that does not enter the cell, hand tools, sampling equipment, gas vents removed from the existing waste area). The decontamination process (including wipe sampling) for each should be specified, along with criteria to be used in determining that decontamination was successful. Regulations in 40 CFR 761.79 and 40 CFR Part 761, Subpart P should be cited, as appropriate. Because the Contractor's Health and Safety Plan is not subject to New York State Department of Environmental Conservation (NYSDEC) or EPA review and approval, provision of decontamination details only in that document (as currently proposed) is insufficient to ensure that applicable TSCA requirements will be met and decontamination will be completed to acceptable levels.*

Arconic Response Comment 10: The Decontamination procedures are outlined in the Health and Safety Plan (HASP) as referenced in this section and will be submitted to NYSDEC and EPA for review prior to Cell 3 expansion and operation. A listing of the items requiring decontamination and proposed decontamination procedures consistent with the HASP are also included in the revised Section 3.4.

Section 3.5. Physical Criteria of Waste, pages 13 and 14

11. *The fourth bullet on page 14 states that wastes placed in the cell must achieve a minimum long-term bearing strength of 16 pounds per square inch. Expand this bullet to specify the time frame within which this criterion must be achieved and the means by which the landfill operator will verify required performance.*

Arconic Response Comment 11: A pocket penetrometer will be used by the full-time CQA inspector immediately following compaction by the contractor to confirm the minimum bearing strength. The text in Section 3.5 will be revised to include this clarification.

12. *The fifth bullet on page 14 states that compaction of waste material will be achieved with up to five passes of a bulldozer, but that these compaction efforts can be lessened under certain conditions. However, the fifth bullet in Section 3.3.2.2 specifies waste compaction above the steel debris deposits*

with a minimum of five passes with a smooth drum roller. Revise the manual to provide clarification on minimum compaction requirements and to specify that testing of in-place strength testing will be conducted as outlined in Section 4.2.2 of the plan.

Arconic Response Comment 12: A pocket penetrometer will be used by the full-time CQA inspector as an indicator test to assess the long term strength of 16 pounds per square inch (psi) has been obtained. The CQA inspector will report results to the Engineer. The Engineer may request additional testing either in the field by taking samples and testing in the lab that confirms the long-term strength criterion has been met. The text in Section 3.5 will be revised to include this clarification.

Section 4.1. Waste Hauling Procedures, pages 15 through 17

13. *The first paragraph in this section states that dredge sediment and other waste from the Grasse River sediment processing area will be hauled to the landfill via County Road 42 and Dennison Cross Road. Figure 4-1 should be revised to show both on-site and off-site haul routes.*

Arconic Response Comment 13: The Offsite haul roads will be added to Figure 4-1.

14. *For consistency with Table 2-1, clarify the fifth paragraph to note that wastes being transported from offsite include polychlorinated biphenyl (PCB)-impacted sediments from the Unnamed Tributary and Grasses River Staging Area, and PCB-impacted materials generated during remediation of Outfalls 001 and 004. The Grasse River sediments currently listed comprise only a small percentage of the wastes to be disposed within Cell 3. Transportation of off-site wastes to the landfill will trigger transporter permitting and waste manifesting requirements under both RCRA and TSCA. Moreover, the requirements of 49 CFR 172.205 do apply to several wastes streams to be disposed at Cell 3. Sections 4.4 and 4.6 of the plan must also be revised to discuss manifesting and/or waste surveying requirements for these off-site wastes in accordance with all applicable RCRA and TSCA regulations.*

Arconic Response Comment 14: As discussed on the conference call between EPA and Arconic on April 12, 2017, off-site wastes are being or have been characterized separately from the Operation of Cell 3. Wastes will be delivered to the Secure Landfill Cell 3 by others under separate contract with Arconic or Alcoa. Regulatory approvals will be obtained prior to waste shipment from the applicable agencies including the need for waste manifesting. Grasse River project materials have been characterized under Superfund for example. The O&M manual will be edited to reflect this.

15. *Revise the second paragraph at the top of page 17 to note that the landfill gate-keeper will monitor incoming waste loads, ensure that waste acceptance criteria are met, perform receiving facility manifest requirements, and maintain the waste receipt and disposal log.*

Arconic Response Comment 15: A CDM Smith CQA inspector will be responsible for monitoring waste deliveries to Cell 3 using Truck Tickets and a summary waste log. This will be added to Section 4.1.

16. *Revise the last paragraph in this section to refer to Section 5 and 6 of the PPC Plan for emergency response guidelines.*

Arconic Response Comment 16: The text in the last paragraph was updated to include the reference to Section 5 and 6 of the PPC. An additional reference was included for the HASP which also provides emergency response guidelines.

Section 4.2.1, Operations and Maintenance, pages 17 and 18

17. *Expand this section to clarify that the owner-selected contractor will also be responsible for conducting inspections as outlined in Section 4.17 of the plan.*

Arconic Response Comment 17: This section will be clarified to explain that CDM Smith's CQA inspector is a trained, authorized SWPPP inspector.

Section 4.3, Access Roads and Traffic Control, page 19

18. *Expand the last paragraph of this section to indicate the number of vehicles anticipated to be in use at any given time during the on-site transfer of waste and receipt of wastes from off-site sources. Figure 4-1 currently indicates only one way traffic between Building 120 and the Cell 3 landfill; unless only one truck is anticipated for use during that effort, the potential for two-way traffic exists and wider roadways or traffic controls will be needed.*

Arconic Response Comment 18: Figure 4-1 will be modified. Two-way traffic from Building 120 to Cell 3 Landfill will exist and more than 1 truck is anticipated for steel transfer. The total number of anticipated vehicles are 2.

Section 4.4, Waste Identification and Manifesting, page 19

19. *Expand the first paragraph of this section to indicate whether and when the wastes identified in Table 2-1 have been fully characterized for hazardous waste disposal purposes. A summary of analytical results and waste composition should be provided to ensure that the proposed groundwater monitoring program and plans for leachate analysis will be adequate.*

Arconic Response Comment 19: As noted in response to comment 14 above, waste characterization is handled separately from landfill O&M. In addition, groundwater monitoring and leachate collection and treatment have been ongoing for many years and is the responsibility of Arconic. Annual reports are provided to NYSDEC's Watertown, NY office and EPA's New York, NY office.

Section 4.8, Stormwater Management, page 22

20. *Regulatory citations presented in paragraphs 5 through 7 of this section contain minor errors. Rather than referring to 6 NYCRR Sections 373-2.14(c)(6) through (8), the paragraphs should respectively refer to 6 NYCRR Sections 373-2.14(c)(7) through (9). Correct the manual accordingly.*

Arconic Response Comment 20: The regulatory citations will be revised.

Section 4.9, Soil Erosion and Sediment Control, page 23

21. *The second paragraph in this section notes that the sediment basin may be needed during construction, landfill operation, and capping. Accordingly, the second paragraph should be corrected to note that the sediment basin will not be converted into a retention basin until closure (rather than construction) is completed at Cell 3.*

Arconic Response Comment 21: A sediment basin will be created in the exclusion zone during the cell 3 expansion (includes area from temporary berm to the west) for erosion and sediment control during expansion. None of the sediment basins created either inside or outside of the exclusion zones will be converted into retention basins due to the fact that a retention basin already exists for the landfill site on the northwest side. The text in Section 4.9 will be modified to include this information.

Section 4.10, Particulate Matter and Dust Control, page 23

22. *The second sentence in this section states that the daily cover requirements in 6 NYCRR Section 373-2.14(c)(10) do not apply to Cell 3. Limiting the use of internal cover materials to the stacked steel and debris area (and as needed to control particulate matter) is acceptable. However, the citation is incorrect. Revise the text to refer instead to 6 NYCRR Section 360-2.17(c).*

Arconic Response Comment 22: The citation in Section 4.10 will be revised.

Section 4.11, Emergency Procedures, page 23

23. *For clarity, revise this section to refer to 6 NYCRR Sections 373-1.5(a)(2)(vi) and (vii).*

Arconic Response Comment 23: The reference in Section 4.11 will be revised.

Section 4.16, Site Security, page 24

24. *Expand this section to document security procedures and equipment in use at the larger Arconic West Plant property, within which the landfill is located. This information is needed to confirm that the current proposal satisfies TSCA regulations in 40 CFR Section 761.75(b)(9) relating to unauthorized access by site visitors and animals. In addition, the manual must document the means by which the landfill owner/operator will ensure that authorized site visitors do not gain unauthorized access to the landfill. Furthermore, it is expected that Arconic will assess any changes that reduce security for the plant property as a whole to determine whether additional landfill-specific security measures are needed to compensate.*

Arconic Response Comment 24: The Arconic West Plant maintains a fully secure perimeter fence and gate system with rigorously monitored entry points that satisfies TSCA regulations as stated in 40 CFR Section 761.75(b)(9). This information will be added to the O&M manual.

Section 4.17. Site Inspection. Page 24

25. *Revise the first sentence in this section to refer to 6 NYCRR Sections 373-2.14(e)(2)(i) through (iii).*

Arconic Response Comment 25: The reference in Section 4.17 will be revised.

26. *Expand the list of inspection items at the bottom of page 24 to include evaluation of the condition of access/haul roads, ramps, and the equipment listed in Sections 5.1 through 5.3 of the plan.*

Arconic Response Comment 26: The text in Section 4.17 will be revised.

Section 5.4, Equipment Maintenance Requirements, page 29

27. *Expand the two bullets on this page to clarify which equipment maintenance and repair tasks will be performed by heavy equipment suppliers, and which are the responsibility of the landfill operator. Without this clarification, critical equipment maintenance tasks may be overlooked, potentially resulting in unanticipated problems on-site.*

Arconic Response Comment 27: The text in Section 5.4 will be revised.

Section 6.1, Leachate Collection System Sampling and Analysis, page 30

28. *Expand this section to indicate whether there are specific acceptance criteria for transfer of leachate to the on-site wastewater treatment plant (WWTP). The plan currently proposes analysis of leachate only for PCBs before transfer to the WWTP. However, analytical results for the anticipated wastes may suggest that additional parameters would be appropriate. The groundwater monitoring summary in Appendix E includes two tables (Tables 4-2 and 4-3) presenting typical leachate composition. If that information remains accurate given the currently anticipated waste types for Cell 3, the leachate analyses may also need to include volatile and semi-volatile organic compounds and metals.*

Arconic Response Comment 28: Only PCB-impacted waste are anticipated for Cell 3. Building 79C Water Treatment is operated and maintained by Arconic Inc. with discharge regulated by the NYSDEC SPDES program.

Section 6.1.1, Primary Leachate, page 30

29. *Clarify the last sentence of the first paragraph to note that any changes to groundwater and/or landfill leachate sampling parameters will require NYSDEC and EPA approval prior to implementation.*

Arconic Response Comment 29: Only PCB-impacted waste are anticipated for Cell 3. If Arconic proposes a waste that are impacted by other contaminants, NYSDEC and USEPA will have approval authority prior to implementation.

Section 6.1.2, Secondary Leachate, page 30

30. *The second paragraph in this section states that any liquid captured by the leak detection and collection system will be analyzed to determine whether it is leachate or trapped stormwater. However, PCBs are the only analytical constituents currently proposed for this purpose. Evaluation of additional parameters (including those listed in Table 4-2 and 4-3 of Appendix E) may prove helpful in distinguishing leachate from stormwater. Conventional parameters such as specific conductance, pH, alkalinity, cyanide, sulfate, ammonia, fluoride, and dissolved oxygen may be beneficial. Revise the plan or provide additional rationale for the proposed analytical program.*

Arconic Response Comment 30: Only PCB-impacted waste are anticipated for Cell 3 and therefore PCBs are the best indicator of leak detection for this application. This will be explained in the manual.

Section 6.1.3. Response Action Plan and Action Leakage Rate, page 35

31. The third paragraph on page 35 should be revised to clarify that, in accordance with 40 CFR Section 264.302(b), the average daily flow rate for each sump will be calculated weekly during the active life of the cell and the associated closure period. More infrequent evaluation may be appropriate during the post-closure care period.

Arconic Response Comment 31: Cell 3 leachate collection monitoring activities are conducted by the Arconic O&M staff. The dedicated flow meter for Cell 3 will be monitored weekly.

Section 6.2, Groundwater Sampling and Analysis, page 36

32. Expand the plan to include a map of current groundwater monitoring well locations.

Arconic Response Comment 32: Refer to Drawing B-203350, a reference will be added to the text.

Section 6.3. Surface Water and Storm water Sampling and Analysis, page 36

33. Expand the plan to include a map of drainage areas and storm water management infrastructure (e.g., retention ponds, outfalls) in relation to the existing and proposed footprints of Cell 3.

Arconic Response Comment 33: Refer to Drawing B-203350, a reference will be added to the text.

Section 6.4, Landfill Gas Monitoring, page 38

34. Expand this section to discuss the potential for methane generation after sediments are placed into Cell 3. Also, correct the citation in this section to refer to 6 NYCRR Section 360-2.17(l)(l) through (3).

Arconic Response Comment 34: This section will be revised to discuss the unlikely generation of methane within Cell 3. Historically, no methane generation has occurred at SLF since commencement of landfilling operations. The citation will be corrected to 6NYCRR Section 360-2.17 is 360-2.17(f)(1) through (3).

Section 7, Administrative Procedures, pages 39 through 41

35. Regulatory citations through Section 7 (and its subsections) include numerous errors. Confirm the appropriate citations, and correct the plan accordingly.

Arconic Response Comment 35: Regulatory citations in Section 7 will be revised as necessary.

Section 7.1.4, Records and Results of Waste Analyses, page 39

36. Expand this section to specify recordkeeping requirements for generator determinations and/or analytical results used to determine hazardous waste characteristics of, and PCB concentrations in, anticipated wastes to be disposed at Cell 3. Although such analyses may not have been undertaken specifically pursuant to the landfill O&M Plan, those records must be maintained at the facility to document that the wastes were properly managed and disposed. Additionally, this section should discuss records required pursuant to RCRA's land disposal restrictions, as codified in 6 NYCRR Sections 373-2.5(c)(2)(xiii) and (xiv).

Arconic Response Comment 36: Arconic maintains records for waste analysis pertaining to SLF at their West Plant as well as at CDM Smith's Massena, NY office. This information will be included in the manual and a reference to 6NYCRR Sections 373-2.5(c)(2)(xiii) and (xiv) will be addressed.

Section 7.1.13, Annual Report, page 41

37. *The first full paragraph on page 41 states that "it has been assumed" that Arconic makes a waste minimization certification pursuant to its ongoing production program and, for this reason, such a declaration is not required specifically with regard to the landfill cell. Confirm whether Arconic does, in fact, make such a certification and revise the plan accordingly. The plan already includes more compelling justification for the waiver request because the cell will receive already existing waste materials pursuant to a formal Record of Decision.*

Arconic Response Comment 37: Alcoa and Arconic has responsibility for meeting this obligation. The text will be revised to reflect this.

Appendix A, Cross-References

38. *Contrary to the information provided in this table, Section 4.18 of the Operations and Maintenance Plan does not discuss special precautions for ignitable or reactive wastes, incompatible wastes, liquid wastes, containers, lab packs, or dioxin wastes. The plan should be expanded to address these issues or to note that they are not anticipated to be of concern throughout the life of Cell 3 (including its expansion). Then the cross-referencing should be corrected with regard to these topics.*

Arconic Response Comment 38: Appendix A – Cross-References will be revised to include the correct section numbers. In terms of special precautions, ignitable or reactive wastes, incompatible wastes, liquid wastes, containers, lab packs, or dioxin wastes are not allowed in Cell 3 and the CQA team will be responsible for ensuring they do not enter Cell 3.

39. *Regulatory citations throughout this table include numerous errors. Confirm the appropriate citations, and correct the appendix accordingly.*

Arconic Response Comment 39: Regulatory citations in Section 7 will be revised as necessary.

40. *Expand this completeness check to include the full suite of applicable requirements including weekly removal of collected liquids in the leachate collection system [373- 2.14(e)(3)(i)], determination of the action leakage rate [373-2.14(n)], development of a response action plan [373-2.14(o)], and retention of information related to land disposal restriction determinations [373-2.5(c)(2)(xiii) and (xiv)]. Each of these topics has been discussed in the body of the plan and can be properly referenced in Appendix A.*

Arconic Response Comment 40: These topics can be added to the applicable requirements.

41. *This table (and related sections of submitted documentation) must be expanded to include references to applicable regulations pertaining to TSCA, according to which EPA is providing oversight for the secure landfill at Arconic. The most pertinent regulations addressing operation*

of PCB landfills and PCB waste disposal (including manifesting) are predominantly, but not exclusively, found in 40 CFR Part 761, Subparts D and K.

Arconic Response Comment 41: This table will be revised to reflect ongoing conformance with all applicable PCB and PCB waste disposal requirements.

Appendix C, PPC Plan, Section 2.7. Accumulation of Excess Leachate, page 8

42. *This section discusses normal transport of leachate from sumps to the on-site WWTP. However, the PPC is intended to consider impacts of and responses to unusual site conditions. For example, pump failure or pipe blockages may result in the presence of excess leachate at Cell 3, which could then be inadvertently released to the environment. Revise this section of the PPC to focus on problematic conditions that may occur.*

Arconic Response Comment 42: Section 6 discusses problematic conditions and a reference will be added to the PPC.

Appendix C, PPC Plan, Section 3.2, Landfill and RWG Employees. page 9

43. *Clarify the second sentence in this section, explaining why "RWG does not expect employees to remain in this classification for long." Will all landfill operations employees be trained and transition to also serve on the emergency response team?*

Arconic Response Comment 43: As stated in Section 3.2, the Contractor will not serve on the emergency response team. Arconic will coordinate with Alcoa's maintenance staff for completing confined space entry and other emergency response activities. The Contractor workers will exit an unsafe area until notified that the area is safe by qualified personnel.

Appendix C, PPC Plan, Section 3.4, Facility Emergency Response Team. Page 10

44. *Clarify when the PPC will be updated to include a complete list of emergency contacts and phone numbers.*

Arconic Response Comment 44: The emergency contact and phone numbers will be updated in Appendix C of the PPC Plan.

Appendix C, PPC Plan, Section 5.2, Order of Response Actions by the Emergency Coordinator, pages 16 and 17

45. *Delete the statement in the fifth bullet on page 16 to "Advance to Step 14." Revise the last bullet in this section (on page 17) to note that all changes to the contingency plan will be reviewed and approved by Arconic, NYSDEC, and EPA prior to implementation.*

Arconic Response Comment 45: There are minor edits to the PPC Plan, such as adding contact information that we do not believe would require approvals. Minor changes such as these will be provided to NYSDEC and EPA for information. Major changes, specifically including TSCA related issues will be communicated to NYSDEC for review and approval and communicated to EPA for review and concurrence.

Appendix C, PPC Plan, Section 5.3.1, Right to Not Respond, page 17

46. Clarify the first paragraph of this section to state that, in the event that the emergency coordinator opts not to respond to a spill due to unacceptable risks to the team, he or she is responsible for notifying other appropriate emergency responders.

Arconic Response Comment 46: The designated Safety Officer will control take control of emergency situations, including the appropriate notifications. The text in Appendix C will be adjusted accordingly.

Appendix C, PPC Plan, Section 5.3.3. Medical Surveillance, page 17

47. Correct the first sentence in this section to require completion of a baseline medical examination no more than one year priory to an individual's being named to the emergency response team. An evaluation conducted earlier than that time may not accurately reflect that individual's current medical status or fitness for work as an emergency responder.

Arconic Response Comment 47: The text in Appendix C, Section 5.3.3 will be revised.

Appendix C, PPC Plan, Section *6.4,* Spills to Waters of New York State, page 21

48. References throughout this discussion to releases that do not need to be reposed to the NYS Spill Hotline should be deleted. All spills that reach the State's water must be reported. However, S. 3.11s addressed in Sections 6.2 and 6.3 of the PPC may satisfy the bulleted conditions in this section and, therefore, be excluded from the requirement to report to the NYS Spill Hotline. Revise those sections accordingly.

Arconic Response Comment 48: The text in Appendix C, Section 6.4 will be revised.

Appendix C, PPC Plan, Section 6.6. Release of Airborne Hazardous Material, pages 23 and 24

49. Much of the discussion in this section is simply a repeat of details provided in Section 6.5 on fires and explosions. Revise Section 6.6 to delete unneeded discussion and clarify actions to be taken when hazardous materials subject to RCRA and/or TSCA become airborne at the landfill.

Arconic Response Comment 49: The text in Appendix C, Section 6.6 will be revised.

Appendix C, PPC Plan, Section 8.1.1, Cell Phones, page 26

50. This section should be expanded to identify a backup method of emergency communication in the event that cellular telephone service is interrupted during an emergency on-site or offsite.

Arconic Response Comment 50: A back-up plan will be developed and included in Section 8.1.1.

Appendix D, Stormwater Management Plan

51. Given the age of the Stormwater Management Plan (January 8, 1993) provided as Appendix D, Arconic must confirm that plans for expansion of Cell 3 will not impact stormwater management capacity or operations. Arconic should also confirm that the cited 24-hour, 25-year storm sizing details are still accurate for the Massena area.

Arconic Response Comment 51: The approved Stormwater Management Plan (January 8, 1993) was based on the entire footprint of the landfill including Cells 1, 2, 3, and 4 with caps in place. We are currently only conducting work in one of these areas, within the approved footprint of the landfill, and the plans for the Expansion of Cell 3 will not impact the approved Stormwater Management Plan. Since the Stormwater Management Plan is already approved and ongoing construction will not impact it, the document will not be changed.

52. *Because it addresses activities related to both ongoing operation of Cell 3 and expansion of that cell, the February 2017 Draft Final Contractor SWPPP should also be provided in this appendix and referenced in the manual.*

Arconic Response Comment 52: The Contractor's SWPPP for the Cell 3 Expansion is provided under separate cover.

II. Comments on the Draft Final Work Plan for Cell 3 O&M

General Comments

1. *The second paragraph in Section 1.0 states that the Work Plan addresses only O&M activities proposed for 2017 within the existing portion of Cell 3. O&M efforts planned for 2018 and 2019, which will presumably include activities in the Cell 3 expansion area, are not detailed in this Work Plan. Although the Work Plan describes placement of material from the Remediation Operations Pilot Study (ROPS) pad and steel waste stockpiled at Building 120, unforeseen changes to the schedule may occur. Consequently, Arconic should consider expanding the Work Plan to include details on placement of sediment, concrete, and other materials identified in Table 4-1 in existing Cell 3. For example, Section 4.9.7 could be revised to include details on placement of sediment in the unit from south to north after placement of steel is complete, and before removal of the temporary berm. This modification would forestall the need to update the Work Plan at a later date if the landfill is required for disposal of these additional wastes in 2017. Moreover, the plan should discuss contingencies to be implemented if expansion of the cell cannot be completed in (and the temporary berm cannot be removed as scheduled).*

Arconic Response General Comment 1: Arconic understands that there are many unknowns that could impact the completion and/or approval of the Cell 3 Expansion project as well as future PCB-impacted waste placement. Arconic will continue to discuss with the agencies the overall Grasse River Remediation Schedule including various scenarios should delays occur. However, for this Work Plan, Arconic prefers that Tetra Tech describe the 2017 operations that follow the approved design and their current contract. The Final O&M Manual does detail Cell 3 frost protection as well as long-term leachate collection/treatment.

2. *As noted above, this Work Plan addresses only those activities planned for 2017. Waste disposal is expected to continue in subsequent years, beyond the duration of the current Work Plan. Because the plan does not detail the full suite of waste disposal activities, some of the listed surveying and demobilization tasks are inappropriate. The Work Plan must be modified to clarify the interim nature of such tasks at the end of 2017. The project schedule in Appendix A should also be revised to include line items for these tasks, clarifying whether waste disposal activities will continue year-round or come to a close at the end of the typical "field season" in upstate New York.*

Arconic Response General Comment 2: Arconic prefers that the Contractor's Cell 3 Operations Work Plan only address efforts for 2017. The Work Plan will be updated for proposed efforts in 2018 at a later date.

3. *This Work Plan must be expanded to specifically document how Arconic will meet TSCA requirements for PCB waste manifesting, disposal, and landfill operation (including decontamination). The regulations most pertinent to this facility are predominantly, but not exclusively, found in 40 CFR Part 761, Subparts D and K.*

Arconic Response General Comment 3: The Work Plan is intended to describe contractor means and methods to meet project objectives. The O&M Plan includes the information on compliance with TSCA requirements.

Section 4.2, Office Facilities and Work Zones, page 4

4. *This section states that work zones will be established, including exclusion zones, pursuant to the Final O&M Manual for Cell 3. However, that manual does not include such details. Expand the documents to include a detailed description and clear map of work zones, staging areas, access roads to the trailer/test pad/staging/tipping areas, ramps (and roads thereto), tipping areas, decontamination stations, load inspection points, and other key areas specific to existing Cell 3 (and accessible to areas west of the proposed temporary berm). Figure 2 from the February 2017 Draft Final SWPPP may serve as a good basis for such*

Arconic Response General Comment 4: Figure 4-1will be edited to show work zones including exclusion zones and decontamination zones will be added to the work plan.

Section 4.4, Traffic and Access Control, page 5

5. *This section details anticipated improvements to existing Cell 3 access roads to the trailer area and between the landfill and Dennison Cross Road. Expand this section to also require evaluation of, and implementation of necessary repairs to, the haul road between Cell 3 and Building 120. This section should also document plans for construction of new heavy equipment entry ramps and repairs to existing ramps into the cell.*

Arconic Response General Comment 5: Figure 4-1 will be revised to show haul roads and entry/exit ramps. A paragraph will be added to Section 4.4 to describe construction plans associated with the haul road improvements and cell 3 entry ramp

6. *Correct the first paragraph to refer to Dennison Cross Road and the second paragraph to the Gate #5 entrance, as shown on Figure 4-1.*

Arconic Response General Comment 6: The text in Section 4-4 and Figure 4-1 will be modified; Gate #5 will be replaced with Gate #6.

Section 4.7, Erosion Control, pages 5 and 6

7. *The second sentence in this section refers to a "stockpile area," and a soil pile is shown on Figure 4-2. Confirm that this pile consists of clean soil, and provide additional detail on why this soil has been stockpiled in the area. Specifically, identify intended uses of the soil, at what point it will be disturbed, and where it will be relocated. References to other documents can be provided as appropriate.*

Arconic Response General Comment 7: The existing soil pile, located immediately east of Cell 3, must be moved to complete the expansion. The soil pile which has previously been sampled for total PCBs (no detections equal or above 1 ppm) will be relocated east of the new light poles and may be used by the Contractor as common fill. The text in Section 4.7 will be updated accordingly.

Section 4.9.1, Interim Cover Removal/Disposal. Pages 6 and 7

8. *This section repeatedly refers to removal of the temporary high density polyethylene (HDPE) liner, followed by disposal of that liner within the cell. However, only the interim cover used during temporary closure of Cell 3 will be removed and disposed during the cell re-opening process. Although the liner beneath the eastern portion of the cell will be exposed and pressure-washed prior to installation of the temporary berm, the liner will not be removed from the existing footprint of Cell 3. Revise the Work Plan for clarity on this issue. This same correction must be made in the third paragraph of Section 4.8.*

Arconic Response General Comment 8: The temporary HDPE liner will be punctured and cut, as needed, to access the existing soil and will remain in Cell 3 for disposal. The bottom primary permanent HDPE will be pressure washed and will not be removed from the existing footprint of Cell 3. The text in Section 4.9.1 will be updated accordingly.

9. *Expand the last paragraph in this section to indicate whether the two gas vents to be removed have come into contact with wastes in Cell 3, whether they will require decontamination, and where they will be stored on site for reuse at a later date.*

Arconic Response General Comment 9: This section will be modified. The two gas vents will either be cut up and placed with the Cell 3 waste or decontaminated for future use.

Section 4.9.2, Exposure of Underlying Primary HDPE Liner, page 7

10. *The description of this field task is unclear. The text currently suggests that waste material and drainage sand layer will be removed from east to west within Cell 3. Then, the underlying geotextile will be pulled back, with any accumulating residual material being moved to the east. The Geonet will then be cut and rolled up for storage, or will be draped (along with the geotextile) other the slope of remaining waste in the cell. The text specifically states that "this process will be repeated moving to the east until the liner is exposed under the temporary berm location"., However, this description suggests that some waste will remain in place east of the proposed temporary berm. Figures 4-3 and 4-4 appear to corroborate this scenario, despite the fact that areas east of the temporary berm are supposed to be "clean" for RCRA and TSCA purposes, facilitating expansion of Cell 3. To resolve this concern, it would seem that all wastes should be drawn westward, such that none remain in place beneath or east of the temporary berm. Clarify planned action under this task. References to other documents can be provided along with the requested clarifications.*

Arconic Response General Comment 10: The text presented in Section 4.9.2 will be clarified to indicate that waste material will be moved to the west. No waste will remain after removal and pressure washing activities (moving from east to west) are completed. Wipe testing will be used for confirmation. Figure 4-3 represents existing waste conditions and Figure 4-4 represents waste to be relocated. To clarify, Figure 404 will be revised to indicate that waste beneath and to the east of the temporary separation berm is to be relocated to the west. In addition, the following note will be added to Figure 4-4: After relocating waste to the west of Cell 3, exposed liner will be pressure washed and wipe samples will be collected to confirm the liner is below TSCA criteria.

Section 4.9.3, Cleaning of Primary HDPE Liner, page 7

11. *The scope of this field task is unclear. Because waste will remain in place (although relocated within) existing Cell 3, it will not be possible or necessary to pressure-wash the entire liner footprint. It appears that the intent of this field task is to clean the liner beneath and east of the proposed location of the temporary berm, which will allow for unimpeded expansion of the cell to the east. Clarify which grid locations on Figure 4-2 will be subject to washing and wipe sampling as part of this effort.*

Arconic Response General Comment 11: The grid depicted on Figure 4-2 is the anticipated grid system for waste placement tracking. Once the waste/sand layer is removed from the eastern portion of Cell 3 and the HDPE liner is pressure washed, a 50 ft by 50 ft grid system will be created for wipe sampling. The toe of slope of the remaining waste will serve as the western edge of the sampling grid. The temporary berm will be installed 10 feet from the western edge of the sampling grid once the sampling analysis confirms the total PCB standard (10 ug/100 cm2) is met. The text in Section 4.9.3 will be updated accordingly.

12. *The plan must detail the wipe sampling process, along with criteria to be used in determining that decontamination of the liner was successful. Regulations in 40 CFR 761.79 and 40 CFR Part 761, Subpart P should be cited, as appropriate. Similar details should be provided throughout the plan wherever decontamination of heavy equipment and vehicles is discussed.*

Arconic Response General Comment 12: Once the Contractor has removed the waste from the HDPE primary liner and completed the pressure washing, they will notify the CQA inspector. A 50 ft by 50 ft grid will be laid out and one wipe sample will be collected per grid, analyzed for total PCBs, and compared to the 10 ug/100 cm2 limit. Once each test meets the standard, the corresponding grid will be cleared to construct the temporary berm in that grid. Section 4.9.3 and 4.10 will be revised to reference 40 CFR 761.79 for decontamination and 40 CFR 761 Subpart P for sampling, as appropriate.

13. *This section states that soils and/or wasted materials remaining on the HDPE liner after removal the geotextile and Geonet will be pressure-washed from south to north toward the leachate collection system. Describe the means by which the contractor will prevent siltation and clogging within the leachate collection basins, or how accumulated material will be managed.*

Arconic Response General Comment 13: The text in Section 4.9.3 will provide additional details regarding minimizing siltation and clogging of the leachate piping. The following sentence was added after sentence 1: Wash water will be filtered through hay bales and/or inlet filter placed around SD-1 to prevent sediment transport.

Section 4.9.6, Removal of ROPS Pad Material. Transportation, and Disposal, page 8

14. *This section states that a 50-foot by 50-foot grid will be established over the ROPS pad area prior to excavation and loading for disposal. Given that the ROPS pad area is roughly 200 feet by 300 feet, there would appear to be a total of 24 grid squares — not 12 grid squares as currently stated. Confirm proposed grid spacing and revise the text for accuracy on this point.*

Arconic Response General Comment 14: Following the initial surveyed mark-out of the ROPS Pad, a 50 ft by 50 ft grid will be established for confirmatory sampling. The text in Section 4.9.6 will be modified to clarify this issue.

15. *The last paragraph in this section states that sharp objects will only be placed in Cell 3 in locations where at least three feet of material exists between that waste and the bottom clay liner. In accordance with the comment on the Cell 3 O&M Manual, clarify that the required three-foot buffer is in addition to the two-foot drainage layer of sand along the cell floor.*

Arconic Response General Comment 15: A 3-foot buffer including the 2-foot sand layer is required for sharp objects placed at the bottom of the cell. For side slopes, a total buffer of 5-foot is required for sharp object placement. The text in Section 4.9.6 will be clarified in the work plan.

Section 4.9.10, Decontamination, page 11

16. *Expand this section to discuss decontamination procedures and location for vehicles that are used to haul wastes to, but do not enter, Cell 3. Simple visual inspection of the box and tires prior to departure from the landfall is not acceptable unless (1) the truck is returning directly to the loading area to pick up additional wastes and (2) there is no possibility that loading personnel will come into contact with residual wastes or contaminants in the truck bed.*

Arconic Response General Comment 16: Section 4.9.10 will be expanded to detail the decontamination procedures for trucks transferring waste into Cell 3.

Section 6.0, Post-Construction Reporting. Page 12

17. *Correct the citation provided in this section to instead reference construction certification requirements required by 6 NYCRR Section 373-2.2(k)(4).*

Arconic Response General Comment 17: The citation in Section 6.0 will be revised.